

WHAT IS CLAIMED IS

1. An online system of locating consumer product having specific configuration in an enterprise production pipeline and inventory, comprising:

5 a locate client process operable to receive product configuration data and generate a search request message incorporating the product configuration data in response to user input;

10 an inventory database storing product availability data in the enterprise production pipeline and in inventory; and

15 a locate server process operable to receive the search request message from the locate client process and further operable to search the product availability data in the inventory database for products matching and substantially matching the product configuration data, the locate server operable to generate a search reply message containing the matching products and return the search reply message to the locate client process.

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2. The system, as set forth in claim 1, wherein the search request message and search reply message are XML messages.

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3. The system, as set forth in claim 1, wherein the search reply message comprises:

30 a list of products and respective configuration data; and

a percentage value for each product in the list indicative of the degree of matching between the product and the product configuration data contained in the search request message.

4. The system, as set forth in claim 1, wherein the inventory database comprises product availability data on products on the order bank, being produced, and in-transit to distribution facilities, and at the 5 distribution facilities.

5. The system, as set forth in claim 1, wherein the search request message comprises a list of search criteria and a weighting of each criterion.

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6. The system, as set forth in claim 1, wherein the search reply message comprises a pointer to an image of each product.

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7. The system, as set forth in claim 1, wherein the locate server process comprises:

a listener operable to receive the search request message from the locate client process;

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a parser operable to receive the search request message from the listener and extract message parameters; and

a searcher operable to search the product availability data in the inventory database according to the message parameters.

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8. The system, as set forth in claim 1, wherein the locate client process comprises:

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a message converter operable to receive a search request document containing search criteria and convert to an XML document having a predetermined format; and

a message client process operable to receive the XML document and convert to an XML search request message.

9. The system, as set forth in claim 8, further comprising a response parser operable to receive the search reply messages from the locate server process and generate record set objects therefrom.

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10. An online method of locating consumer product having specific configuration in an enterprise production pipeline and inventory, comprising:

10 receiving a search request message having product configuration data submitted by a user;

formulating a search query with search criteria corresponding to the product configuration data;

15 searching an inventory database for a product matching the product configuration data, the inventory database containing product on the order bank, in-production, in-transit, and in-inventory;

generating a search reply message containing any product substantially matching the product configuration data; and

20 sending the search reply message to the user.

11. The method, as set forth in claim 10, further comprising:

25 receiving the search request message on a predetermined port;

parsing the search request message to extract product configuration data; and

searching the inventory database using the extracted product configuration data.

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12. The method, as set forth in claim 10, wherein receiving the search request message comprises receiving an XML search request message.

13. The method, as set forth in claim 10, wherein generating the search reply message comprises:

compiling a list of products and respective configuration data; and

5 providing a percentage value for each product in the list indicative of the degree of match between the product and the product configuration data contained in the search request message.

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S *X* 14. The method, as set forth in claim 10, wherein receiving the search request message comprises receiving a list of search criteria and a weighting of each criterion.

15 15. The method, as set forth in claim 10, further comprising:

receiving a search request document containing search criteria and converting to an XML document having a predetermined format; and

20 20. converting the XML document to an XML search request message.

16. The method, as set forth in claim 10, further comprising:

25 displaying product configuration information to the user on a web page;

receiving product configuration selection from the user; and

30 displaying a search result list of product substantially matching the product configuration and percentage matching data on a web page.

17. The method, as set forth in claim 10, further comprising:

importing in-inventory product availability data from dealerships; and

importing in-process product availability data from an enterprise database.

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18. The method, as set forth in claim 10, wherein generating the search reply message comprises:

incorporating a unique identifier of each substantially matching product;

10 incorporating product configuration data of each substantially matching product; and

15 sorting the substantially matching products by descending degree of match between the product configuration data of the products and the product configuration data in the search request message.

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19. The method, as set forth in claim 10, further comprising:

20 receiving a tag request message submitted by the user, the tag request message containing a unique product identifier;

modifying the product availability data associated with the product identified by the unique product identifier in the inventory database; and

25 generating a tag reply message confirming the completion of tagging the identified product.

30 20. The method, as set forth in claim 19, further comprising suppressing the tagged product from subsequent search requests.

21. The method, as set forth in claim 16, further comprising displaying an image of the product in response to receiving a user selection input.

22. The method, as set forth in claim 16, further comprising displaying detailed information associated with a product in response to receiving a user selection 5 input.

23. The method, as set forth in claim 16, further comprising:

receiving a user selection input of a product in the 10 list;

generating a search request message having an unique product identifier associated with the selected product;

searching the inventory database for detailed data associated with the unique product identifier;

15 generating a search reply message having the detailed data.

24. An online method of locating automotive vehicles having specific configuration in an enterprise 20 production pipeline and inventory for purchase, comprising:

receiving a search request message having vehicle configuration data submitted by a user;

25 formulating a search query with search criteria corresponding to the vehicle configuration data;

searching an inventory database for a vehicle matching the vehicle configuration data, the inventory database containing vehicles on the order bank, in-production, in-transit, and in-inventory at the 30 dealerships;

generating a search reply message containing any vehicle substantially matching the vehicle configuration data, the search reply message including a vehicle

identifier and vehicle configuration data of each substantially matching vehicle; and sending the search reply message to the user.

5 25. The method, as set forth in claim 24, further comprising:

receiving the search request message on a predetermined port;

10 parsing the search request message to extract vehicle configuration data; and

searching the inventory database using the extracted vehicle configuration data.

15 26. The method, as set forth in claim 24, wherein receiving the search request message comprises receiving an XML search request message.

27. The method, as set forth in claim 24, wherein generating the search reply message comprises:

20 compiling a list of vehicles and respective vehicle configuration data; and

25 providing a percentage value for each vehicle in the list indicative of the degree of match between the vehicle and the vehicle configuration data contained in the search request message.

28. The method, as set forth in claim 24, wherein receiving the search request message comprises receiving a list of search criteria and a weighting of each criterion.

29. The method, as set forth in claim 24, further comprising:

receiving a search request document containing search criteria and converting to an XML document having a predetermined format; and

5 converting the XML document to an XML search request message.

30. The method, as set forth in claim 24, further comprising:

10 displaying vehicle configuration information to the user on a web page;

receiving vehicle configuration selection from the user; and

15 displaying a search result list of vehicles substantially matching the vehicle configuration and percentage matching data on a web page.

31. The method, as set forth in claim 24, further comprising:

20 importing in-inventory vehicle availability data from dealerships;

importing in-process vehicle availability data from an enterprise database; and

25 updating the inventory database with the imported data.

32. The method, as set forth in claim 24, wherein generating the search reply message comprises:

incorporating a unique vehicle identifier of each substantially matching vehicle;

30 incorporating vehicle configuration data of each substantially matching vehicle; and

sorting the substantially matching vehicles by descending degree of match between the vehicle and the vehicle configuration data in the search request message.

33. The method, as set forth in claim 24, further comprising:

5 receiving a tag request message submitted by the user, the tag request message containing a unique vehicle identifier;

modifying the vehicle availability data associated with the vehicle identified by the unique vehicle identifier in the inventory database; and

10 generating a tag reply message confirming the completion of tagging the identified vehicle.

34. The method, as set forth in claim 33, further comprising suppressing the tagged vehicle from subsequent search requests.

35. The method, as set forth in claim 30, further comprising displaying a photographic image of the vehicle in response to receiving a user selection input.

20 36. The method, as set forth in claim 30, further comprising displaying detailed information associated with a vehicle in response to receiving a user selection input.

25 37. The method, as set forth in claim 30, further comprising:

receiving a user selection input of a vehicle in the list;

30 generating a search request message having an unique vehicle identifier associated with the selected vehicle;

searching the inventory database for detailed data associated with the unique vehicle identifier;

generating a search reply message having the detailed data.

38. An online method of purchasing a vehicle,
5 comprising:

displaying vehicle configuration data;
receiving user online input on vehicle configuration, including make, model, and color of the vehicle;

10 receiving user online input to search for a vehicle having the vehicle configuration;

generating a search request message incorporating the user-entered vehicle configuration;

15 sending the search request message to a locate process;

receiving a search reply message including a list of vehicles substantially matching the user-entered vehicle configuration; and

displaying the list of vehicles.

20 39. The method, as set forth in claim 38, further comprising:

receiving an online user input selecting a vehicle from the list of vehicles;

25 receiving an online user input requesting to tag the selected vehicle;

generating a tag request message incorporating a unique vehicle identifier of the selected vehicle; and

30 sending the tag request message to the locate process.

40. The method, as set forth in claim 38, wherein displaying the list comprises displaying the vehicles in

descending percentage of degree of match to the user-entered vehicle configuration.

41. The method, as set forth in claim 38, further
5 comprising:

receiving an online user input selecting a vehicle
from the list of vehicles;

receiving an online user input requesting detailed
data on the selected vehicle;

10 generating a search request message incorporating a
unique vehicle identifier of the selected vehicle; and

sending the search request message to the locate
process.

15 42. The method, as set forth in claim 41, further
comprising:

receiving a search reply message including detailed
data on the selected vehicle; and

displaying the detailed data.

20 43. The method, as set forth in claim 41, further
comprising:

receiving a search reply message including a pointer
to an image of the selected vehicle; and

25 displaying the detailed data using the pointer.

44. The method, as set forth in claim 41, further
comprising:

30 receiving a search reply message including a uniform
resource locator to a web page containing an image of the
selected vehicle; and

displaying the web page specified by the uniform
resource locator.

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